

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 18,004 | 11/21/2000 | Thomas R. Birchard | 15512-001 | 9341 |

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04/10/2002

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EXAMINER

COLAIANNI, MICHAEL

ART UNIT

PAPER NUMBER

1731

5

DATE MAILED: 04/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/718,004

Applicant(s)

Birchard

Examiner

Michael Colaianni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 18, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above, claim(s) 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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Election/Restriction

1. Claims 11-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention. Election was made **without** traverse in Paper No. 4.
2. Applicant's election without traverse of Group I, claims 1-10 in Paper No. 4 is acknowledged.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 37. Correction is required.

Claim Objections

4. Claim 2 is objected to because of the following informalities: in line 11, the period “.” after “fed” should be deleted and the word “With” should not be capitalized. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 refers to "the hook means" which lacks antecedent basis.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by

Wellech 2296321.

Wellech teaches a shaping mandrel having a first end and a second end, said mandrel having a desired shape for receiving around it the molten glass thread such that when the thread is drawn about the desired shape, a formed coil is developed that essentially takes a desired shape from the shaping mandrel (Fig. 1b, ref. no. 50); a block for moving the formed coil in a direction towards the second end in response to additional molten glass thread drawn to the coil (Fig. 1b, ref. no. 55, 60); attachment means for first engaging the molten glass thread (Fig. 1c, ref. no. 50, the hole in the mandrel (50) serves as the attachment means); and variable rotating means for

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rotating the attachment means (page 1, col. 2, lines 50-51, the “proper speed” inherently implies that the motor speed is variable to achieve a “proper” speed).

Wellech also teaches an elongated stablizer bar of sufficient length to support the desired length of the formed glass coil, having a first end adjacent the mandrel (Fig. 1b, ref. no. 50, the “elongated stablizer bar” may be deemed to be merely an extension of the mandrel, i.e. a really long mandrel. Thus, Wellech teaches a stabilizer bar by using the elongated mandrel).

Wellech also teaches the attachment means is slidably engaged with the stablizing bar (in this case the attachment means (the hole in the mandrel) slides along with the stabilizing bar (the extended mandrel) (Fig. 1b, ref. no. 50).

Wellech also teaches tension adjusting means for controlling the tension between the attachment means and the stabilizing bar (page 1, col. 2, lines 50-51, the “proper speed” inherently implies a variable speed motor whose speed would act to control the tension in the glass thread).

Wellech also teaches means for adjusting the resistance to movement of the formed coil (Fig. 1b, ref. no. 55, 50, the shoe 44 controls the “pitch” of the helix and thus will control the movement of the formed coil).

Wellech also teaches the block having a planar face with a lateral drive point angled with respect to movment of the formed coil, the mandrel extends through the block and the attachment means being attached to the second end of the mandrel (Fig. 1b, ref. no. 50, 55).

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Wellech also teaches the elongated stabilizing bar so constructed so that the glass thread moves on the elongated stabilizer bar (Fig. 1b, ref. no. 50).

9. Claims 1-4, 6-7, 9-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Klavik AT 107928.

Klavik teaches a shaping mandrel having a first end and a second end, said mandrel having a desired shape for receiving around it the molten glass thread such that when the thread is drawn about the desired shape, a formed coil is developed that essentially takes a desired shape from the shaping mandrel (Fig. 2, ref. no. 1); a block for moving the formed coil in a direction towards the second end in response to additional molten glass thread drawn to the coil (Fig. 1 and 2, ref. no. 2); attachment means for first engaging the molten glass thread (Fig. 2, ref. no. 1 and 5, the glass member 5 is held to the mandrel 1 by some attachment means as evidenced by the partial strand shown on the mandrel); and variable rotating means for rotating the attachment means (1 paragraph, the mandrel 1 rotates. The limitation that the rotating means is variable is not relevant because it goes to a method of operation, not a structural limitation of the apparatus claims).

Klavik also teaches an elongated stabilizer bar of sufficient length to support the desired length of the formed glass coil, having a first end adjacent the mandrel (Fig. 2, ref. no. 1, the "elongated stabilizer bar" may be deemed to be merely an extension of the mandrel, i.e. a really long mandrel. Thus, Klavik teaches a stabilizer bar by using the elongated mandrel).

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Klavik also teaches the attachment means is slidably engaged with the stabilizing bar (in this case the attachment means slides along with the stabilizing bar (the extended mandrel) (Fig. 2, ref. no. 1 and 5).

Klavik also teaches means for adjusting the resistance to movement of the formed coil (Fig. 2, ref. no. 2 and 2, the shoe 2 controls the "pitch" of the helix and thus will control the movement of the formed coil).

Klavik also teaches the block having a planar face with a lateral drive point angled with respect to movement of the formed coil, the mandrel extends through the block and the attachment means being attached to the second end of the mandrel (Fig. 2, ref. no. 1 and 2).

Klavik also teaches the elongated stabilizing bar so constructed so that the glass thread moves on the elongated stabilizer bar (Fig. 2, ref. no. 1 and 2).

While it is believed that Klavik teaches a variable rotating means, in the alternative, it would have been *prima facie* obvious to use a variable rotating means with Klavik's tube bending apparatus because doing so would provide for better control of the bending and permit the glass tubing to be bent at the proper speed. Also, the speed of rotation will determine the tubing thickness because of the drawing of the tube the mandrel, thus control the rotating speed is crucial to the proper helix thickness and length.

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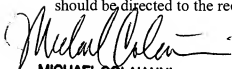
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Colaianni whose telephone number is (703) 305-5493.

The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on (703) 308-3837. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.


MICHAEL COLAIANNI
PRIMARY EXAMINER

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April 8, 2002